SANTA CRUZ BIOTECHNOLOGY, INC.

TAF I p68/63 (N-15)-R: sc-6574-R

BACKGROUND

For gene transcription governed by RNA polymerase I, the human transcription factor SL1 (mouse TIF-IB) directs the assembly of initiation complexes at the prompter. Like TFIID, which directs transcription by RNA polymerase II, SL1/TIF-IB contains the TATA-binding protein (TBP) and a set of TBP-associated factors (TAFs). The three TAF I subunits, hTAF I p110, hTAF I p63 and hTAF p48 (or mouse TAF I p95, TAF I p68 and TAF I p48) are all integral components of SL1/TIF-IB. The mutually exclusive binding of either TAF I or TAF II subunits to TBP is believed to direct the formation of promoter and RNA polymerase-specific complexes.

REFERENCES

1. Learned, R.M., et al. 1985. Purification and characterization of a transcription factor that confers promoter specificity to human RNA polymerase I. Mol. Cell. Biol. 5: 1358-1369.
2. Clos, J., et al. 1986. A purified transcription factor (TIF-IB) binds to essential sequences of the mouse rDNA promoter. Proc. Natl. Acad. Sci. USA 83: 604-608.
3. Bell, S.P., et al. 1990. Assembly of alternative multiprotein complexes directs rRNA promoter selectivity. Genes Dev. 4: 943-954.
4. Comai, L., et al. 1992. The TATA-binding protein and associated factors are integral components of the RNA polymerase I transcription factor, SL1. Cell 68: 965-976.
5. Eberhard, D., et al. 1993. A TBP-containing multiprotein complex (TIF-IB) mediates transcription specificity of murine RNA polymerase I. Nucleic Acids Res. 21: 4180-4186.
6. Comai, L., et al. 1994. Reconstitution of transcription factor SL1: exclusive binding of TBP by SL1 or TFIID subunits. Science 266: 1966-1972.
7. Zomerdijk, J.C., et al. 1994. Assembly of transcriptionally active RNA polymerase I initiation factor SL1 from recombinant subunits. Science 266: 2015-2018.
8. Heix, J., et al. 1997. Cloning of murine RNA polymerase 1-specific TAF factors: conserved interactions between the subunits of the species-specific transcription initiation factor TIF-IB/SL1. Proc. Natl. Acad. Sci. USA 94: 1733-1738.

CHROMOSOMAL LOCATION

Genetic locus: TAF1B (human) mapping to 2p25.1; Taf1b (mouse) mapping to 12 A1.3.

SOURCE

TAF I p68/63 (N-15)-R is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of TAF I p63 of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6574 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-6574 X, 200 µg/0.1 ml.

APPLICATIONS

TTAF I p68/63 (N-15)-R is recommended for detection of TAF I p63 of human origin and TAF I p68 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TAF I p63 siRNA (h): sc-38488, TAF I p68 siRNA (m): sc-38489, TAF I p63 shRNA Plasmid (h): sc-38488-SH, TAF I p68 shRNA Plasmid (m): sc-38489-SH, TAF I p63 shRNA (h) Lentiviral Particles: sc-38488-V and TAF I p68 shRNA (m) Lentiviral Particles: sc-38489-V.

TAF I p68/63 (N-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TAF I p68: 68 kDa.

Molecular Weight of TAF I p63: 63 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Hannan, K.M., et al. 2003. mTOR-dependent regulation of ribosomal gene transcription requires S6K1 and is mediated by phosphorylation of the carboxy-terminal activation domain of the nucleolar transcription factor UBF. Mol. Cell. Biol. 23: 8862-8877.
2. Yamamoto, K., et al. 2004. Multiple protein-protein interactions by RNA polymerase I-associated factor PAF49 and role of PAF49 in rRNA transcription. Mol. Cell. Biol. 24: 6338-6349.
3. Kao, C.F., et al. 2004. Activation of RNA polymerase I transcription by hepatitis C virus core protein. J. Biomed. Sci. 11: 72-94.

RESEARCH USE

For research use only, not for use in diagnostic procedures.